

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method of detecting an angular position of a rotor of an electrical machine which is coupled in rotation without slip to an internal combustion engine that is fitted with a sensor delivering a first signal representative of the angular position of the engine at speeds of rotation that are greater than a minimum measurement speed, wherein

on the basis of at least one characteristic of the electrical machine, a second signal is generated that is representative of an estimated angular ~~rotor position of the rotor of for~~ the electrical machine for speeds of rotation that are less than a maximum estimation speed, said estimation speed being equal to or greater than the minimum measurement speed;

as a function of an estimated speed of rotation, there is delivered to a control circuit configured to control the electrical machine,

the second signal whenever the estimated speed of rotation is below a first threshold greater than or equal to the minimum measurement speed; or

the first signal whenever the estimated speed of rotation is greater than a second threshold greater than or equal to the first threshold but less than or equal to the maximum estimation speed;

and a changeover from the second signal to the first signal, and vice versa, is performed at an estimated speed of rotation lying between the first threshold and the second threshold.

2. (Previously Presented) A method according to claim 1, wherein during an increase in the speed of rotation while the second signal is being delivered, a changeover from the second signal to the first signal is performed when the estimated speed of rotation reaches the second threshold, and wherein, during a decrease in the speed of rotation while the first signal is being delivered, a changeover from the first signal to the second signal is performed when the estimated speed of rotation reaches the first threshold.

3. (Previously Presented) A method according to claim 2, wherein the second threshold is less than the idling speed of the internal combustion engine.

4. (Currently Amended) A method according to claim 1, wherein the estimated speed of rotation is determined on the basis of at least one electrical characteristic of the electrical machine.

5. (Previously Presented) A method according to claim 1, wherein the estimated speed of rotation is determined by a timer triggerable when the engine is started.

6. (Previously Presented) A method according to claim 1, wherein the first threshold is equal to 500 rpm and the second threshold is equal to 700 rpm.

7. (Currently Amended) A method for controlling an alternator, comprising:
determining a position of a rotor of the alternator using data obtained from a first data source; and
determining a rotor position of the rotor of for the alternator using data obtained from a second data source.

8. (Previously Presented) The method of claim 7, wherein data obtained from the first data source is used when a first condition is met and data from the second data source is used when a second condition is met.

9. (Currently Amended) The method of claim 7, wherein only one of the data from the first data source and data from the second data source is used at a time to determine a rotor position of the rotor.

10. (Previously Presented) The method of claim 9, further comprising determining whether to use data from the first data source or data from the second data source based on a speed of rotation.

11. (Previously Presented) The method of claim 10, wherein the speed of rotation is an estimate of the speed of rotation.

12. (Currently Amended) The method of claim 7, further comprising switching between determining a rotor position of the rotor using data obtained from the first data source and using data obtained from the second data source.

13. (Previously Presented) The method of claim 12, wherein a point at which switching occurs is different when a speed of rotation is increasing than when the speed of rotation is decreasing.

14. (Previously Presented) The method of claim 13, wherein a point at which a switch is made is less than an idling speed of an engine to which the alternator is coupled.

15. (Previously Presented) The method of claim 7, wherein the second data source is not a toothed wheel.

16. (Currently Amended) The method of claim 7, wherein the data from the first data source and the data from the second data source are usable to determine an accurate representation of a rotor position ~~of the rotor~~ over different ranges in a speed of rotation.

17. (Currently Amended) The method of claim 16, wherein the ranges in which the data from the first data source and the data from the second data source are usable to determine an accurate representation of a rotor position ~~of the rotor~~ have a range of overlap.

18. (Currently Amended) A method of detecting an angular position of a rotor of an electrical machine, comprising:

determining a rotor position ~~of a rotor~~ ~~off~~ for the electrical machine using data obtained from a first data source;

determining a rotor position ~~of the rotor~~ ~~off~~ for the electrical machine using data obtained from a second data source;

switching between determining a rotor position ~~of the rotor~~ using data obtained from the first data source and using data obtained from the second data source, a point at which switching occurs being different when a speed of rotation is increasing than when the speed of rotation is decreasing.

19. (Previously Presented) The method of claim 18, wherein switching occurs when a speed of rotation is decreasing only when the speed of rotation is zero.

20. (Previously Presented) The method of claim 18, wherein the switching occurs based on an estimate of the speed of rotation.

21. (Currently Amended) A vehicle comprising:

an engine;

an electrical machine coupled to the engine and comprising a rotor; and

a control circuit configured to determine a position of a rotor of the electrical machine using data obtained from a first data source and determine a rotor position of the rotor of for the electrical machine using data obtained from a second data source.

22. (Previously Presented) The vehicle of claim 21, wherein the first data source comprises a toothed wheel sensor.

23. (Previously Presented) The vehicle of claim 21, wherein the first data source comprises a position estimator restricted to low speeds.

24. (Currently Amended) The vehicle of claim 21, wherein the control circuit is configured to accurately determine a rotor position of the rotor over an entire range of speeds of the engine.

25. (Currently Amended) The vehicle of claim 21, wherein the control circuit is configured to switch between determining a rotor position of the rotor using data obtained from the first data source and using data obtained from the second data source, a point at which switching occurs being different when a speed of rotation is increasing than when the speed of rotation is decreasing.

26. (Previously Presented) The vehicle of claim 21, wherein the first data source is not a toothed wheel sensor.

27. (Currently Amended) The vehicle of claim 21, wherein the control circuit is configured to switch between determining a rotor position of the rotor using data obtained from the first data source and using data obtained from the second data source, the control circuit configured to switch to using data obtained from the second data source when a predetermined amount of time has elapsed after the engine is started.

28. (Previously Presented) The vehicle of claim 27, wherein the control circuit is configured to switch to using data from the first data source when the engine is stopped.